

# Mid-Stream with Phase II

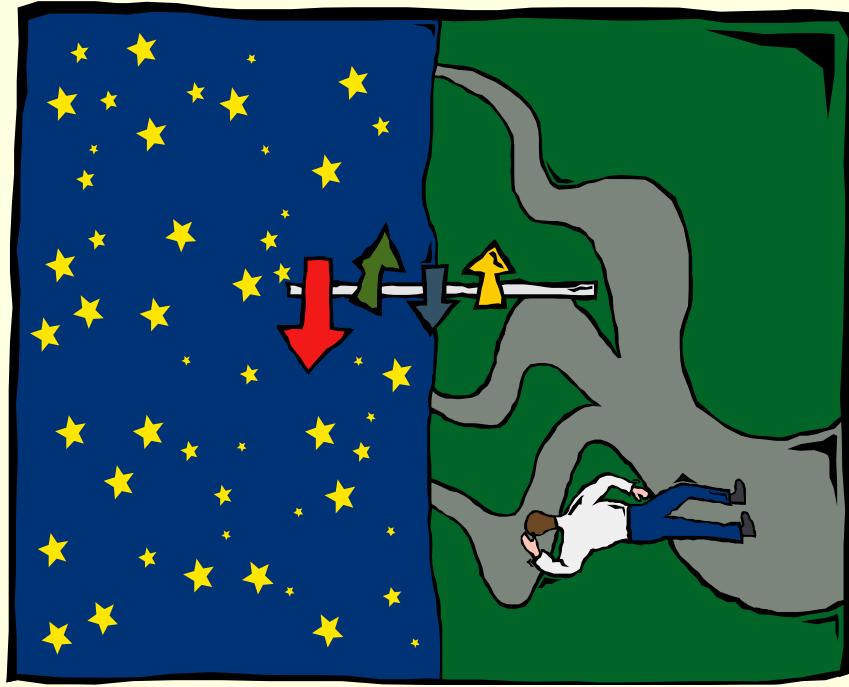
A Storm Water Management  
Program Update

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with assistance from CDP Engineers and GSCPC

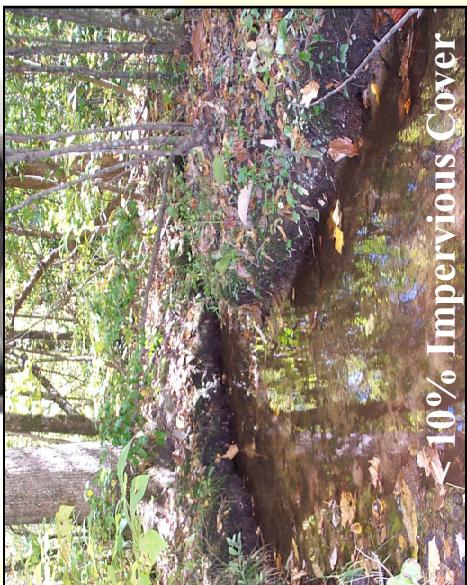
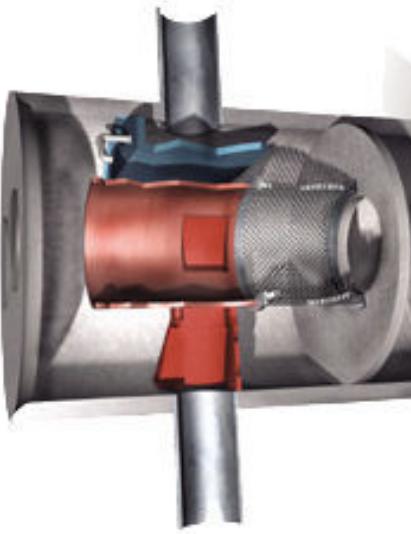
# Overview

- **BAD NEWS -**  
I'm here to bore you with numbers and details
- **GOOD NEWS -**  
I want to fill you with concepts, thoughts, ideas, and current trends to reflect upon and see how they affect Georgetown.



# Overview

- Clean Water Act  
and the MS4 Permit
- Issues
- Our Past (permit)
- Our Future!
- Options



# National Pollutant Discharge Elimination System (NPDES)

- Product of the Clean Water Act of 1972
- Point and Non-point source pollutants
- Targets operators of Municipal Separate Storm Sewer Systems (MS4s)
- Phase I 1993 – Lexington and Louisville
- Phase II 2003
  - all cities larger than 10,000 people and
  - urban area with greater than 1,000 people/mi<sup>2</sup>.

# The ‘Unfunded Mandate’!!

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NPDES Phase I and II Stormwater Programs  
courtesy of the Clean Water Act

- New set of rules to establish and follow
- New programs to develop and manage
- Increased operations and maintenance
- Increased Administration responsibilities  
AND
- No State or Federal support to make it happen

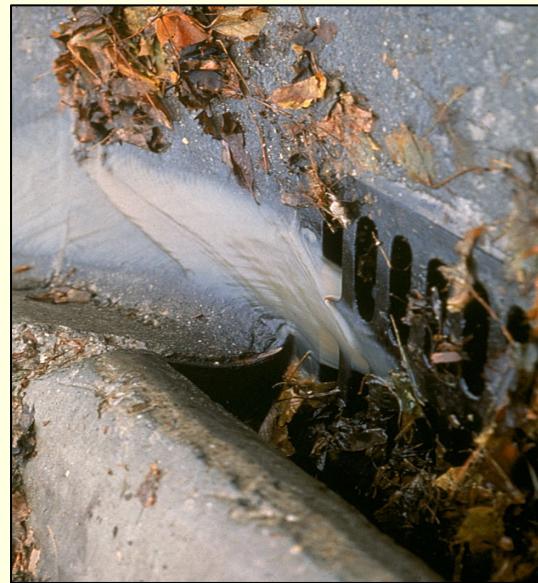
# The Driving Forces

- Increased concern about degrading water quality caused by :
  - Sediments
  - Metals
  - Oils
  - Pathogens
  - Organics
  - Impervious area
- Waterways impacted by increased quantity and decreased quality of runoff as evidenced by:
  - Increased flooding
  - Designated land use impairment
  - Decreased biodiversity
  - Aesthetic and quality of life issues
- Sensitive Resources to Protect :
  - Royal Springs Aquifer
  - North Elkhorn Creek
- Bank failure
- Land loss
- Muddy streams
- Vegetation depletion

# Where does storm water go?

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When it rains, a large amount of storm water . . .



Runs off of  
impervious  
surfaces

Enters the storm  
drain system

Is directed straight to  
the stream

# **Impervious Cover Influences Water Quality**

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**Pollutants build up on impervious surfaces and wash off into the stream system when it rains.**



# Why should we be concerned?

- Flooding
- Sewer overflows



# Why should we be concerned?

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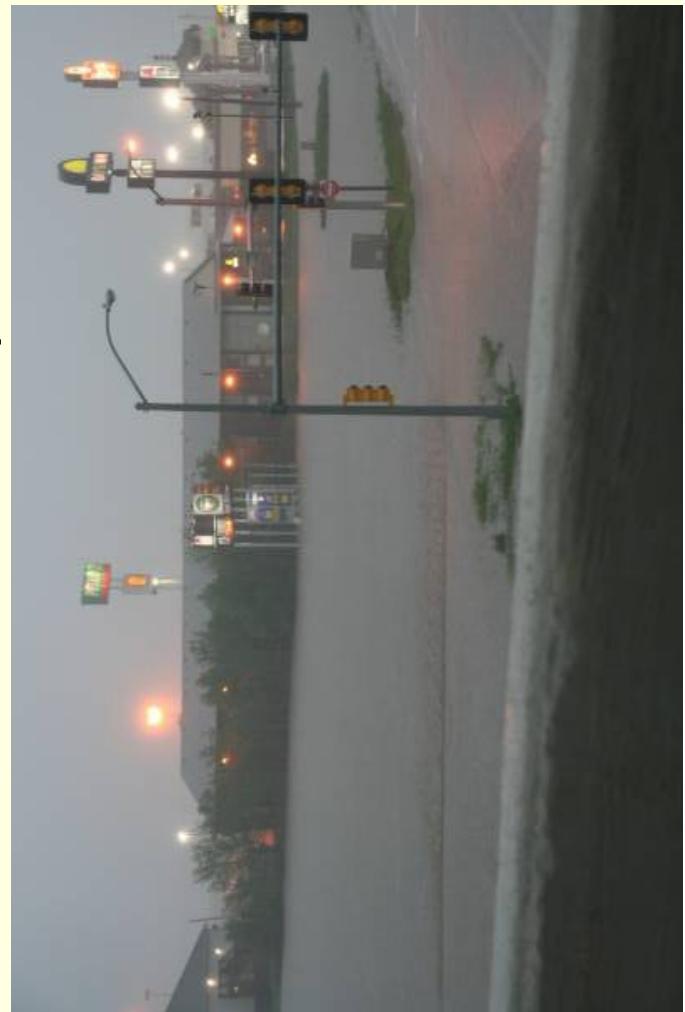
- Stream degradation
- Water quality
- Designated use non-support



# Why should we be concerned?

## ■ Cost to you

- Infrastructure needs
- Losses – land, property, life
- Maintenance cost
- Fines for non-compliance



# The Birth of a New Acronym: SWMP

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## Storm Water Management Program

Best Management Practices (BMPs) have always been around. What was lacking were dedicated programs or requirements to effectively utilize BMPs to address storm water runoff and discharge of pollutants on a community-wide basis and raise the awareness that storm water management goes beyond the construction site and affects us all.

# The Underlying Theme for Phase III Permit Term #1:

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Let's give storm water management the attention we do other municipal operations through appropriate legal authority, funding, and staffing and see what happens.

# Focus of First Permit

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## Term: 2003-2008

- Lay the ground work
- Educate
- Set the program in motion
- Evaluate

# The 6 Minimum Control Measures (MCM)

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- Public Education and Outreach
- Public Involvement and Participation
- Illicit Discharge Detection and Elimination
- Construction Site Runoff Control
- Post Construction Storm Water Management
- Good Housekeeping for Municipal Operations

# The Matrix: Phase II

## Now Playing in Communities Near You!

Task/BMP - Activity Description	Milestone Product/Measurable Goal	Who is Responsible	Year 1	Year 2	Year 3	Year 4
			PY 03-04	PY 04-05	PY 05-06	PY 06-07
<b>1. PUBLIC EDUCATION AND OUTREACH</b>						
1.1 Distribute Storm Water/NPS Pollution Education Brochures at Strategic Public Locations	Place brochures at library, court house, Planning Commission	City, SWAC	Distribute	Distribute	Evaluate Effectiveness, Distribute	Distribute
1.2 Have Water Quality Speakers/Presentations at Schools and other interested groups	One to four presentations per year once program is ready to implement	City	Develop Program	Present	Evaluate, Present	Present
1.3 Public Service Announcements (PSA) on Local Government TV	Show on regular schedule (e.g. 2x/day) once program is developed	City	Develop PSA and program	Run PSA	Evaluate, Run PSA	Run PSA
1.4 Present Storm Water Seminars to City Council and Planning Commission	Have city engineer or planner or others present seminars on topics of NPS Pollution, water quality, stream protection, etc.	City, SWAC	Present Topic To Be Determined	Present Topic TBD	Present Topic TBD	Present Topic TBD
<b>2. PUBLIC INVOLVEMENT/PARTICIPATION</b>						
2.1 Develop Storm Water Advisory Committee (SWAC) to discuss community SW issues and direction of SW program.	Form SWAC with broad coalition of interests from public and private sector	City, SWAC	Form SWAC, meet quarterly & develop listed programs	Develop listed programs	Evaluate listed programs	Evaluate listed programs
2.2 Stencil Catch Basins	Enlist volunteers to stencil catch basins, number to be determined during program development	City, SWAC	Complete mapping	Develop program, contact volunteer organizations	Stencil	Stencil
2.3 Tree Plantings	Enlist volunteers to plant trees, number to be determined during program development	City, SWAC	Discuss with U.S. Forest Service	Determine interest of organizations	Develop program	Implement
<b>3. ILLICIT DISCHARGE DETECTION AND ELIMINATION</b>						
3.1 Map public storm water system with outfalls and watersheds	Create digital map of entire storm sewer system (major system currently being surveyed)	City	Complete surveying major system	Survey minor system	Survey minor system	Survey minor system (if not complete)
3.2 Create ordinance prohibiting illicit discharges	Develop and implement an illicit discharge ordinance	City, SWAC	Research and Develop Ordinance	Adopt Ordinance		
3.3 Provide Enforcement through Code Enforcement or other agency	Develop enforcement capabilities	City, SWAC	Research Enforcement	Begin Enforcement once ordinance in place		

# Laying the Groundwork

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- Educational tools
- Public participation programs
- Storm sewer system mapping
- Ordinance revisions/development
- Provisions for enforcement
  - Legal authority
  - Capacity to perform
- Illicit discharge detection and elimination plan
- Reporting, tracking, and record keeping

# MCM 1: Educate

- Broadcast information
  - Brochures
  - Information on community web page
  - Presentations to community leaders
  - Presentations to civic groups
  - Public service announcement
- Training
  - Municipal employees
  - Volunteer groups for participatory activities
- Ourselves: EPA, DOW, other community guidance

# Spread the Word

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- Educate – presentations, field days, trainings
- Outreach – brochures, web postings, articles
- Demonstrate what you've done –
  - Show your community that you are the role models for good stewardship
  - Inform your elected officials of the requirements and cost of compliance

## MCM 2: Community Buy-In

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- Volunteers, volunteers, volunteers
- Find ways to get residents and businesses involved
- Mix it up – you never know when the light bulb will finally turn on
- Rewards and incentives
  - Recognition
  - Financial returns
  - Community pride

